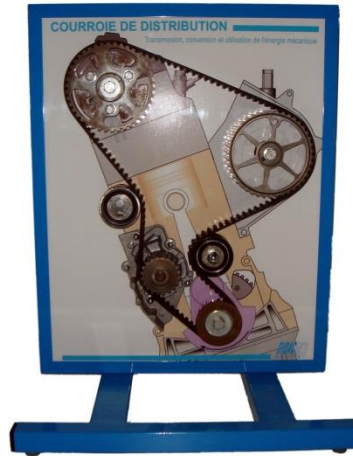




## TIMING BELT

Réf : ANA-CD



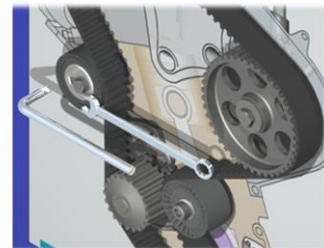
The timing belt links the crankshaft to the camshaft through the coolant pump and the injection pump. The path of the belt is determined by the position of the gears and rollers. The damage caused to an engine's transmission system by the deterioration of the timing belt can bring the vehicle to a standstill and can even partly destroy the engine, resulting in costly repairs.

It is highly advisable to replace both the timing belts and the belt tighteners and idlers at the same time as a preventive measure according to the manufacturer's recommendations, and to carefully adjust the tightness of the notched belt.

New methods have been developed to improve the precision of the tightness settings that consist essentially in blocking the shafts while the allowing the pulleys to rotate.

### Presentation :

The model of the timing belt consists of a console comprising the pulleys, the belt tighteners and idler and the belt, which are all positioned like in a real engine.



### The following are supplied:

- conventional tools used to adjust the tightness,
- a tool used to measure the tightness when installing,
- a kit of spare rollers for teaching purposes,
- 3D digital models of the transmission parts.



### Teaching activities:

This tool can be used to teach the functional, structural and mechanical analyses that are part of the new AVA BTS course (French National Education). Trainees work on a mechanical subassembly on a bench using real tools in a real-life situation.

After completing these activities, trainees will be able to:

Identify a power transmission solution:

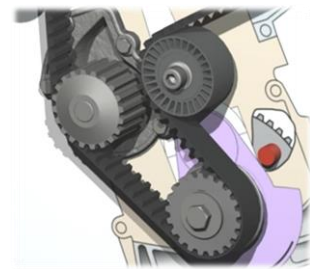
- Real components are used

Identify the parameters that impact operation, life time and maintainability:

- Study the tightness settings by actually removing and installing the timing belt using modern methods.
- Comparative study of the method used and the old method that involved blocking the pulleys.

Anticipate changes, draw up a repair method and produce the materials required in order to understand:

- While removing/installing the timing belt with a new kit of spare rollers, the technician is unable to tighten the belt tightener.
- Identification of a solution (replacement of the nuts and bolts, discussion of the set of measurements).
- Production of the technical documentation (repair method) describing the solution.



This model also caters for the BEP and BAC levels (French National Education). A teaching kit on CD-ROM is supplied with the model.

**Centers of interest covered:**

CI4: transmission, conversion and use of mechanical energy.

CI6: producing technical documents.

**Dimensions :**

The model is mounted on anti-skid feet.

Dimensions (mm) :

Length= 450

Width= 360

Height= 550

Weight (Kg) :

30

**Options :**

- Protective bag

CAP

BAC PRO

BTS

SUP

**AUTOMOBILE**